C A S. II.

Ordinatæ $pz^{\theta-1}R^{\lambda}$ & $qz^{\theta+n-1}R^{\lambda}$, quibus areæ pA & qB jam reſpondeant, ſi in R ſeu $e+fz^{n}+gz^{2n}$ ducantur ac deinde ad R viciſſim applicentur, evadunt $pe+pfz^{n}+pgz^{2n}\times z^{\theta-1}R^{\lambda-1}$ & $qez^{n}+qfz^{2n}+qgz^{3n}\times z^{\theta-1}R^{\lambda-1}$. Et per Prop. III. eſt $az^{\theta}R^{\lambda}$ area Curvæ cujus Ordinata eſt $\theta ae \substack{+\theta\\+\lambda n} afz^{n} \substack{+\theta\\+2\lambda n} agz^{2n}$ in $z^{\theta-1}R^{\lambda-1}$, & $bz^{\theta+n}R^{\lambda}$ area Curvæ cujus ordinata eſt $\substack{\theta\\+n} bez^{n} \substack{+\theta\\+n\\+\lambda n} bfz^{2n} \substack{+\theta\\+n\\+2\lambda n} bgz^{3n}$ in $z^{\theta-1}R^{\lambda-1}$. Et harum quatuor arearum ſumma eſt $pA+qB+az^{\theta}R^{\lambda}+bz^{\theta+n}R^{\lambda}$ & ſumma reſpondentium ordinatarum

$$\begin{array}{llll} \theta ae & \substack{+\theta\\+\lambda n} afz^{n} & \substack{+\theta\\+2\lambda n} agz^{2n} & \substack{+\theta\\+n\\+2\lambda n} bgz^{3n} \text{ in } z^{\theta-1}R^{\lambda-1}. \\ +pe & \substack{+\theta\\+n} be & \substack{+\theta\\+n\\+\lambda n} bf & +qg \\ & +pf & +pg & \\ & +qe & +qf & \end{array}$$

Si terminus primus tertius & quartus ponantur ſeorſim æquales nihilo, per primum fiet $\theta ae+pe=0$ ſeu $-\theta a=p$, per quartum $-\theta b-nb-2\lambda nb=q$, & per tertium (eliminando p & q) $\frac{2ag}{f}=b$. Unde ſecundus fit $\frac{\lambda naff-4\lambda nage}{f}$, adeoq; ſumma quatuor Ordinatarum eſt $\frac{\lambda naff-4\lambda nage}{f}z^{\theta+n-1}R^{\lambda-1}$, & ſumma totidem reſpondentium arearum eſt $az^{\theta}R^{\lambda}+\frac{2ag}{f}z^{\theta+n}R^{\lambda}-\theta aA-\frac{2\theta+2n+4\lambda n}{f}agB$.

Divi-

Dividantur hæ ſummæ per $\frac{\lambda naff-4\lambda nage}{f}$, & ſi Quotum poſterius dicatur D, erit D area curvæ cujus ordinata eſt Quotum prius $z^{\theta+n-1}R^{\lambda-1}$. Et eadem ratione ponendo omnes Ordinatæ terminos præter primum æquales nihilo poteſt area Curvæ inveniri cujus Ordinata eſt $z^{\theta-1}R^{\lambda-1}$. Dicatur area iſta C, & qua ratione ex areis A & B inventæ ſunt areæ C ac D, ex his areis C ac D inveniri poſſunt aliæ duæ E & F ordinatis $z^{\theta-1}R^{\lambda-2}$ & $z^{\theta+n-1}R^{\lambda-2}$ congruentes, & ſic deinceps in infinitum. Et per analyſin contrariam regredi licet ab areis E & F ad areas C ac D, & inde ad areas A & B, aliaſq; quæ in progreſſione ſequuntur. Igitur ſi index λ perpetua unitatum additione vel ſubductione augeatur vel minuatur, & ex areis quæ Ordinatis ſic prodeuntibus reſpondent duæ ſimpliciſſimæ habentur; dantur aliæ omnes in infinitum. Q. E. O.

C A S. III.

Et per caſus hoſce duos conjunctos, ſi tam index θ perpetua additione vel ſubductione ipſius n, quam index λ perpetua additione vel ſubductione unitatis, utcunq; augeatur vel minuatur, dabuntur areæ ſingulis prodeuntibus Ordinatis reſpondentes. Q. E. O.

C A S.

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